UNITED STATES MARINE CORPS
Logistics Operations School
Marine Corps Service Support Schools
PCS BOX 20041
Camp Lejeune, North Carolina 28541-0041

1303

STUDENT OUTLINE

LOGAIS IN SUPPORT OF FDP&E

LEARNING OBJECTIVES:

1. TERMINAL LEARNING OBJECTIVE(S): Given the task to coordinate a unit's transportation requirement, the operations order, listing of supplies, equipment, personnel, and the references, coordinate transportation support for a unit operation/deployment, to ensure sufficient transportation assets are available to support unit deployment. (0402.04.01)

2. ENABLING LEARNING OBJECTIVE(S):

     a. Without the aid of reference, identify the systems within the LOGAIS family in accordance with the references.

     b. Without the aid of reference, identify the role of each system within the LOGAIS family in support of Force Deployment Planning and Execution (FDP&E) in accordance with the reference.

     c. Without the aid of reference, validate reports generated from LOGAIS for each phase of planning within the Force Deployment Planning and Execution process in accordance with the reference.

     d. Without the aid of reference, identify required transportation information produced by LOGAIS in support of the Force Deployment Planning and Execution (FDP&E) process, in accordance with the reference.

     e. Without the aid of reference, identify agencies responsible for each process/program within LOGAIS that supports the Force Deployment Planning and Execution (FDP&E) process in accordance with the reference.

1. **THE LOGAIS FAMILY OF SYSTEMS**

     A. <u>MAGTF II/LOGAIS</u> is a family of microcomputer-based systems designed to provide Fleet Marine Forces with a tool kit of resources for the rapid planning and tracking of all MAGTF resources during all operational stages.

     B. <u>FUNCTION</u>: The main purpose of the system is to communicate. Not only does it help communicate with other systems organic to the Marine Corps but links to the joint world to show all commanders the MAGTF's capabilities. It is a tool used to help us deploy and show other agencies within the Department of Defense our requirements for transportation.

          1. The following programs are part of the LOGAIS Family of systems:

     JOPES   MAGTF II GTN
     MDSSII   TCAIMS   ATLASS
     MDL   CAEMS   CALM
     AIT

2. **IN GARRISON**

     A. <u>ATLASS</u>: When we are not operating we have a requirement to maintain a unit database that contains every piece of equipment that we own. A battalion should be managing a database that contains the entire table of equipment. This is a supply function and is managed in ATLASS.

     1. Asset Tracking Logistics and Supply System is a base point for the LOGAIS family of systems.

     2. ATLASS contains every piece of equipment for an unit. MDSSII will accept an ATLASS download to aid in constructing a unit database. The information out of ATLASS is not configured for what is needed in MDSSII and requires modification.

          a. The level of detail ATLASS provides proves to be too much information for MDSSII to manage. For example, ATLASS maintains a record for each item in the unit. If a unit has 100 sleeping bags ATLASS will maintain one record for each bag. In MDSSII it is more advantageous to have one

record that depicts sleeping bags with a quantity of 100. This keeps databases small so when they are combined at higher headquarters the amount of information is easily understood.

Note: This level of detail is not mandated in policy but is necessary for the system to work properly to source a MAGTF requirement much later in the planning process.

      b. Units that do not have a massive Table of Equipment may find the interface between ATLASS and MDSSII useful due to the fact that they do not have to modify a large amount of data. Units that do carry a heavy T/E may find that creating a database without the interface to be simpler and more time effective.

   3. Having an accurate unit database in MDSSII is a requirement in garrison to facilitate time sensitive planning. It is critical to make sure the 0431 Marines are updating this information constantly so when the warning order appears the Marines can concentrate on configuring the equipment vice spending long hours behind a computer.

   B. <u>MDSSII</u>: The center of the LOGAIS family of systems is MDSSII. This system is nothing more than a master database, which holds all information concerning equipment and personnel. It is managed at the battalion and squadron levels and utilized at higher headquarters for deliberate planning.

   1. Capabilities include the ability for the user to:

      a. Tailor equipment for embarkation.

      b. Assign personnel and equipment to a deployment requirement.

      c. Assign personnel and equipment to carriers.

      d. Establish in-transit visibility (ITV) with the use of Automatic Identification Technology (AIT).

   2. MDSSII interfaces not only with other members of the LOGAIS family of systems but with some external programs as well. These programs are:

     - MAGTF II

- CAEMS
- TCAIMS
- MDL
- FOSAMS
- ATLASS
- MIPS
- CALM

3.   **PLANNING STAGE**: In the planning stage of a contingency everything is already mapped out when deliberate planning is done. This is all retained at the top of the LOGAIS family in Joint Operations Planning and Execution System (JOPES).

   A. JOPES: Operations plans (OPLANS) for every type of scenario are retained in the event of a crisis. These OPLANS are designed to get units out of town quickly without much planning. Not only do these OPLANS in JOPES give the Marine Corps a logistical scheme of maneuver but every branch or service. JOPES communicates in a joint language.

      1. JOPES provides the foundation for conventional command and control (C2) by national and theatre commanders. Designed to satisfy information needs in the conduct of joint operations. Includes joint operation planning, policies, procedures, and reporting structure.

Commands are supported by communications and automated data processing systems. JOPES is used to monitor, plan, and execute mobilization deployment, employment and sustainment associated with joint operations.

      a. FORCE STRUCTURE: All of this information is combined into a force structure or force list. The force structure information is then transferred to MAGTF II.

   B. MAGTF II is the part of the LOGAIS family of systems that belongs to the S/G-3 operations sections. The primary operator of this system is the 0511 MAGTF Planner. The main thing MAGTF II does is translate the force structure from the joint world into the Marine Corps' language.

      1. The MAGTF Planner is responsible for tailoring the force structure to the mission requirements and ensuring that the deployment information is fed back to the

joint community. Almost all of the functions that are found in JOPES for the joint world are available in MAGTF II. Some of these functions include:

a. Ability to construct TUCHA (Type Unit Characteristics File) data. This TUCHA data is put together from a units Table of Equipment and Table of Organization to task a unit with particular equipment and personnel necessary to support a mission.

b. Ability to determine lift requirements for the deploying forces. This is the moving units' responsibility to verify but the MAGTF Planner must have the ability to show justification for the amount of lift required to USTRANSCOM.

c. Ability to calculate sustainment for all classes of supply. This is a ballpark figuring process that requires input from the 0491. The MAGTF Planner may understand that a vehicle uses gas and POL to operate and that there is a number to calculate from to determine how much it will use in theatre. The planner may or may not understand that there are different requirements based upon the climate that need to be taken into consideration. It is imperative that coordination between the 0491 and 0511 are thinking in the same terms for the support needed.

d. Ability to produce TPFDD (Time Phased Force Deployment Data) reports. Obviously the best plans are nothing more than a basis to start with and require changes and validation. The MAGTF Planner has the ability to produce TPFDD reports that have not been input into JOPES for validation.

2. REQUIREMENT: The MAGTF Planner constructs the requirement and sends it to the subordinate units to fulfill. At this point the S-4 steps into the picture and builds a deployment database from the MAGTF requirement. This is important as the TUCHA data becomes actual data reflecting actual weights and dimensions to establish accurate lift requirements. At this point MDSSII comes back into to the picture to tailor the deployment database for movement.

C. MDSSII offers the following capabilities to aid in doing so:

1. <u>LINKING</u>: The user has the ability to establish parent/child relationships. This is needed to show that a particular truck is the prime mover for a particular trailer and that in the back of the trailer there is a certain box mobile loaded. Another example would be an ISO container with eight boxes put inside. The container is the parent and the boxes are children.

2. <u>EMBARKATION</u>: After linking is accomplished the user can assign the cargo to a specific mode of transportation to start determining lift requirement. This process does not yet establish load plans but gives the user an idea of how many airplanes will be required by weight and how many ships will be required by square and cube. This process must be done in order to communicate to the programs that will aid the user in load planning.

D. <u>LOAD PLANNING</u>: MDSSII will communicate with two programs to aid in load planning. These load plans are necessary in the execution phase to aid in the embarkation of forces.

1. <u>CAEMS</u>: Computer Aided Embarkation Management System is used to aid in the development of shipload plans. CAEMS is a graphics tool that shows a two dimensional representation of a ship with all available stowage compartments. CAEMS will take the assigned cargo from MDSSII and convert them to two-dimensional templates that reflect how much space the cargo will occupy. From CAEMS the user can not only construct a shipload plan but also produce documentation to satisfy transportation agency requirements.

a. Caution: All CAEMS drawings are not an accurate depiction of the ship. COMNAVSURFLANT Combat Cargo Officers have updated the CAEMS drawings and have incorporated them into the MDL. The West Coast ships are currently not accurate.

b. Sexy templates are not accurate. Also, when changes are made to the dimensions in the UDL they are not reflected by sexy templates. A shipload plan that shows detailed templates is destined to fail.

2. <u>CALM</u>: Computer Aided Load Manifesting is a DOS based program that is not in the typical LOGAIS format. This program is managed by the Air Force to aid the user in

producing documentation to satisfy transportation agency requirements.

      a. MDSSII communicates to CALM but cannot import CALM data. Chalks are constructed in MDSSII and exported to CALM. When CALM imports this information the user can then manipulate the information into a load plan. This system, like CAEMS, gives the user a two dimensional representation of the aircraft stowage area and cargo so the user can balance the aircraft and produce the information for the aircraft to fly.

      b. Some of the things that CALM does not support are PAX manifests, Hazardous Material Shipper's Declarations, JAI forms, and Wheels in the Well reports.

    E. <u>TCAIMS</u>: Not only is it important to establish how many ships and airplanes will be required for a deployment but it is also critical to be able to move the deploying assets and personnel to the points of embarkation. This is managed by Transportation Control Automated Information Management System.

      1. TCAIMS is in the LOGAIS operating system. This program is to be used to manage assets that move equipment and personnel and to convert movement to MILSTAMP format. This program should be networked in a Logistics Movement Control Center (LMCC) and in every support battalion that has transportation assets. Some of the functions the TCAIMS provides are:

          - Dispatching
          - Plan Convoys
          - SAAM Requests
          - Aid in In-Transit Visibility.

    F. <u>VALIDATION</u>: After the requirement for lift is established the deployment data that reflects the lift requirements from the subordinate units are pushed back to the MAGTF planner. The MAGTF planner insures that the lift requirements are allocated for and restructures the force list based upon the commander's input.

    When the conflicts are resolved priorities are reestablished and fed back to JOPES so the execution phase can begin.

3. **EXECUTION**

   A. <u>IN-TRANSIT VISIBILITY</u>: ITV is the largest part of the execution of movement. It is a hard requirement to show the Joint Chief of Staff as well as the Theatre Commander the capabilities that they have at all times in addition to being accountable for Marines and their equipment.

      1. <u>LOGMARS/AIT</u>: Logistics Marking and Reading Symbols technology aids the deploying force by giving them the capability to put a bar code label on equipment. Automatic Identification Technology is used to scan these labels and record locations on equipment as it is moved to the operating forces.

         a. Historically, application of this technology has been hit-or-miss due to the fact that it is extremely difficult to use. Extensive training is necessary for it to be employed and operated properly not only for the Marines that have to use it but for the officers/SNCO's implementing it.

      2. <u>WHEELS IN WELL</u>: In conjunction with LOGMARS and AIT deploying forces are required to report when the equipment is sent. Wheels in the Well Reports can be produced to show force closure to JOPES and the CINC can track his assets. This can be done in GTN and/or with the aid of MAGTF II.

      3. <u>GLOBAL TRANSPORTATION NETWORK</u>: GTN is a relatively new system that interfaces with LOGAIS to help show accountability and visibility of forces being deployed. Currently this system is being managed by the Air Force. It helps show visibility more rapidly as it has the capability to be located and operational anywhere in the world by SATLINK.

   B. <u>MOVEMENT OF ASSETS</u>: As equipment is moved by mode of transportation, the information makes it way back through the family of systems to show all of the players from all of the services how we are moving. This is extremely important for it is imperative that USTRANSCOM understands our requirement for movement and the CINC can understand his given capabilities on deck for tactical decision making.

REFERENCES:

1. Joint Planner's Guide
2. LOGAIS Tutorial Disk Files